

Title (en)
Suspension member for a vibration actuator

Title (de)
Aufhängungsglied für einen Schwingungsaktuator

Title (fr)
Élément de suspension pour actionneur à vibration

Publication
EP 2355544 A1 20110810 (EN)

Application
EP 09180139 A 20091221

Priority
EP 09180139 A 20091221

Abstract (en)
A resilient suspension member for suspending a mass element of a vibration actuator. The suspension member is configured to extend elastically, providing a tensional restoring force, when the mass is displaced. Also provided is a resilient suspension member formed of a material having a Young's modulus less than 50MPa, preferably less than 20MPa.

IPC 8 full level
H04R 9/06 (2006.01); **B06B 1/04** (2006.01)

CPC (source: EP US)
B06B 1/045 (2013.01 - EP US); **F16M 13/02** (2013.01 - US); **H02K 33/00** (2013.01 - US); **H04R 9/06** (2013.01 - EP US);
H04R 11/02 (2013.01 - EP US); **H04R 2400/03** (2013.01 - EP US); **H04R 2400/07** (2013.01 - EP US); **H04R 2499/11** (2013.01 - EP US)

Citation (search report)
• [XY] EP 1742504 A1 20070110 - NAMIKI PRECISION JEWEL CO LTD [JP]
• [XY] EP 0845920 A2 19980603 - MATSUSHITA ELECTRIC IND CO LTD [JP]
• [XY] US 2003123692 A1 20030703 - UEKI MASATAKA [JP]
• [XYI] WO 02092244 A1 20021121 - SANYO ELECTRIC CO [JP], et al
• [XY] JP 2002345061 A 20021129 - FOSTER ELECTRIC CO LTD
• [XI] US 6618487 B1 20030909 - AZIMA HENRY [GB], et al

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
WO 2011077356 A1 20110630; CN 102714770 A 20121003; EP 2355544 A1 20110810; EP 2357849 A2 20110817; EP 2517479 A1 20121031;
US 2013076162 A1 20130328

DOCDB simple family (application)
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US 201013517245 A 20101220